Claims

- 1. A valve assembly (47), in particular an inlet valve assembly of a high-pressure fuel pump (16), having a valve element (46) disposed in a valve chamber (42) and having a fluid conduit (30) adjoining the valve chamber (42) on the upstream side, characterized in that the fluid conduit (30) is embodied such that a rotation (swirl) about the longitudinal axis (38, 40) of the fluid conduit (30) is impressed on the fluid stream that flows toward the valve chamber (42).
- 2. The valve assembly (47) as recited in claim 1, characterized in that the fluid conduit includes a first conduit portion (34) and adjoining it a second conduit portion (36), and the longitudinal axes (38, 40) of the conduit portions (34, 36) are at an angle < 180° to one another, and the longitudinal axis (38) of the first conduit portion (34) is laterally offset (V) from the longitudinal axis (40) of the second conduit portion (36).
- 3. The valve assembly (47) as recited in claim 2, characterized in that the longitudinal axes (38, 40) of the two conduit portions (34, 36) are at least approximately at a right angle to one another.
- 4. The valve assembly (47) as recited in one of the foregoing claims, characterized in that it includes a ball (46) or a cone element as the valve element.

- 5. The valve assembly (47) as recited in one of claims 2 through 4, characterized in that both conduit portions (34, 36) in cross section have at least approximately the same radius; and that the lateral offset (V) of the longitudinal axes (38, 40) is greater than the radius.
- 6. The valve assembly (47) as recited in one of claims 2 through 5, characterized in that a transition region between the first conduit portion (34) and the second conduit portion (36) is machined by means of electrochemical removal of material.
- 7. The valve assembly (47) as recited in claim 6, characterized in that the transition region includes a wall (41) that is curved from the first conduit portion (34) to the second conduit portion (36).
- 8. The valve assembly (47) as recited in one of claims 2 through 7, characterized in that the first conduit portion (34) extends axially insignificantly, if at all, past the second conduit portion (36).
- 9. The valve assembly (47) as recited in one of the foregoing claims, characterized in that the longitudinal axis of the first conduit portion (34) and the longitudinal axis of the second conduit portion (36) form an angle > 90°.